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Sequence Listing could not be accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2008; month=8; day=4; hr=13; min=20; sec=52; ms=3; ]

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\*\*\*\*\*

Reviewer Comments:

<210> 1

<211> 217

<212> DNA

<213> Saccharomyces cerevisiae complete genome

The above <213> response is invalid, per 1.823 of the Sequence Rules. The only valid responses are: the Genus species (Genus species only-- move other words to the <220>-<223> section. This error appears in many subsequent sequences.

<210> 20

<211> 36

<212> DNA

<213> Sequence Recognized by Synthetic DNA Binding Protein

The above <213> response is invalid, per 1.823 of the Sequence Rules. Please refer to error explanation above for valid <213> responses. Same type of error in Sequences 23, 26-27, 30-34.

\*\*\*\*\*

Application No: 10609383 Version No: 5.0

Input Set:

Output Set:

**Started:** 2008-08-04 11:53:26.021  
**Finished:** 2008-08-04 11:53:28.365  
**Elapsed:** 0 hr(s) 0 min(s) 2 sec(s) 344 ms  
**Total Warnings:** 34  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 34  
**Actual SeqID Count:** 34

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (1)
W 402	Undefined organism found in <213> in SEQ ID (2)
W 402	Undefined organism found in <213> in SEQ ID (3)
W 402	Undefined organism found in <213> in SEQ ID (4)
W 402	Undefined organism found in <213> in SEQ ID (5)
W 402	Undefined organism found in <213> in SEQ ID (6)
W 402	Undefined organism found in <213> in SEQ ID (7)
W 402	Undefined organism found in <213> in SEQ ID (8)
W 402	Undefined organism found in <213> in SEQ ID (9)
W 402	Undefined organism found in <213> in SEQ ID (10)
W 402	Undefined organism found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (13)
W 402	Undefined organism found in <213> in SEQ ID (14)
W 402	Undefined organism found in <213> in SEQ ID (15)
W 402	Undefined organism found in <213> in SEQ ID (16)
W 402	Undefined organism found in <213> in SEQ ID (17)
W 402	Undefined organism found in <213> in SEQ ID (18)
W 402	Undefined organism found in <213> in SEQ ID (19)
W 402	Undefined organism found in <213> in SEQ ID (20)

**Input Set:**

**Output Set:**

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Error code

Error Description

This error has occurred more than 20 times, will not be displayed

# SEQUENCE LISTING

<110> Feldmann, Richard J.

<120> Modifying the Control of Gene Expression Behavior by the Deletion  
of Connectrons and by the Design and Addition of Synthetic  
Connectrons in Prokaryotic, Archea and Eukaryotic Genomes

<130> FELD3002CIP1/ESS

<140> 10609383

<141> 2003-07-01

<150> US 09/866,925

<151> 2001-05-30

<150> US 60/393,558

<151> 2002-07-05

<160> 34

<170> PatentIn version 3.5

<210> 1

<211> 217

<212> DNA

<213> Saccharomyces cerevisiae complete genome

<220>

<221> misc\_feature

<222> (12572)..(12788)

<223> Chromosome = 1 Strand = positive Connectron Object Number = 36

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gcactggtaa caggtggtaa tgaagaagta atttcctgac ttgttggtgt actggtaaca 60

ggtggtaatg atgaagtaat ttcctgactt gttgttgtag tggtaacagg tggtaatgaa 120

gaagtaattt cctgacttgt tgttgactg gtaacagggtg gtaatgatga agtaatttcc 180

tgacttggtt ttgtactggt aacagggtgt aatgatg 217

<210> 2

<211> 236

<212> DNA

<213> Saccharomyces cerevisiae complete genome

<220>

<221> misc\_feature

<222> (12572)..(12807)

<223> Chromosome = 1 Strand = positive Connectron Object Number = 39

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 gaagtaattt cctgacttgt tgttgactg gtaacagggtg gtaatgatga agtaatttcc 180  
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<210> 3  
 <211> 166  
 <212> DNA  
 <213> *Saccharomyces cerevisiae* complete genome

<220>  
 <221> misc\_feature  
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 <223> Chromosome = 1 Strand = negative Connectron Object Number = 112

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 gtcaggaaat tactttcttca ttaccacctg ttaccactac aaaaacgagc gaacaaacca 120  
 ctttggttac cgtgacatcc tgcgaatctc atgtgtgcac tgaatc 166

<210> 4  
 <211> 37  
 <212> DNA  
 <213> *Escherichia coli* k-12 MG1655 complete genome

<220>  
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 <222> (4626130)..(4626166)  
 <223> Chromosome = 1 Strand = positive Connectron Object Number = 4651a

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 tctgatgaca aacgccaaac tgctgatgc gctacgc 37

<210> 5  
 <211> 54  
 <212> DNA  
 <213> *Escherichia coli* k12 MG1655 complete genome

<220>  
 <221> misc\_feature  
 <222> (705150)..(705203)  
 <223> Chromosome = 1 Strand = negative Connectron Object Number = 811a

<400> 5

tctgatgaca aacgccaaac tgctgatgc gctacgctta tcaggcctac gcag 54

<210> 6  
<211> 36  
<212> DNA  
<213> Escherichia coli k12 MG1655 complete genome

<220>  
<221> misc\_feature  
<222> (757718)..(757753)  
<223> Chromosome = 1 Strand = negative Connectron Object Number = 975

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<210> 7  
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<220>  
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<212> DNA  
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<210> 9  
<211> 36  
<212> DNA  
<213> Escherichia coli k12 MG1655 complete genome

<220>  
<221> misc\_feature

<222> (757718)..(757753)  
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 <211> 16  
 <212> DNA  
 <213> Saccharomyces cerevisiae complete genome - problem  
  
 <220>  
 <221> misc\_feature  
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 <223> Chromosome = 2 Strand = positive Connectron Object Number = 792a  
  
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 <210> 11  
 <211> 16  
 <212> DNA  
 <213> Saccharomyces cerevisiae complete genome - problem  
  
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 tattgcatgc tggatg 16  
  
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 <211> 539  
 <212> DNA  
 <213> Saccharomyces cerevisiae complete genome - problem  
  
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 <222> (448454)..(448992)  
 <223> Chromosome = 5 Strand = positive Connectron Object Number = 4749  
  
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 gcatctagga agtaaccttg tacgaaaata ggcaatattt cctgtttagg cgattgtgac 120  
  
 gcagatttta gtccaacgat ctagcgtcaa ggaatttttt tatagtggga cattgcacca 180

aggaagtaac ttgatacgtc gtgggtgaat gggctctgttt tcttattcgg cggggtaata	240
catttttggg ggaagtttgt ctgtctgacg cgccatatgt aggtacgcca aaaagggtc	300
ctctacttcg aagcgcgagg tcgtatacct aataaggaaa tgtaatttat aactttttat	360
tatattggtc ttttcgagag cggaacgtag gtccatgttt aaagtatcca agagaatatc	420
cacgaagcgg ctgagcaacg aacagaatcc tggttctcct cgactaagca gatagttaag	480
atactgtgca ccatggaaat tgaaaacgaa agtacgtacc gactacttta tttttgcag	539

<210> 13  
 <211> 158  
 <212> DNA  
 <213> *Saccharomyces cerevisiae* complete genome - problem

<220>  
 <221> misc\_feature  
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 <223> Chromosome = 5 Strand = negative Connectron Object Number = 4824a

<400> 13	
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gcatctagga agtaaccttg tacgaaaata ggcaatattt cctgtttagg cgattgtgac	120
gcagatttta gtccaacgat ctacggtcaa ggaatttt	158

<210> 14  
 <211> 134  
 <212> DNA  
 <213> *Halobacterium* sp. NRC-1 complete genome

<220>  
 <221> misc\_feature  
 <222> (732401)..(732534)  
 <223> Chromosome = 1 Strand = positive Connectron Object Number = 6612

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gcgatgggtgc tggtcgccgc gatcgccgcc ggcgtcctca tcaacactgc cggctacctc	120
caatccaagg ggtc	134

<210> 15  
 <211> 193  
 <212> DNA  
 <213> *Halobacterium* sp. NAC-1 complete genome



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<220>
<221> misc_feature
<222> (733018)..(733209)
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<400> 15
gacgagcgcg gtcaagtggg gatcggcaca ctcatcggtg tcatcgcgat ggtgctggtc      60

gccgcgatcg ccgccggcgt cctcatcaac accgccggct acctccaatc caaggggtcg      120

gcaaccggtg aggaagcctc cgcacaggtc tccaaccgca tcaacatcgt ctccgcgtac      180

ggcaacgtca aca                                                                193

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<210> 16
<211> 85
<212> DNA
<213> Halobacterium sp. NAC-1 complete genome

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<220>
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<400> 16
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ggcgtctctca tcaacactgc cggt                                                                85

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<210> 17
<211> 121
<212> DNA
<213> Pseudomonas aeruginosa PA01, complete genome

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<222> (4832718)..(4832838)
<223> Chromosome = 1 Strand = positive Connectron Object Number =
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aagggcatct ccgagcagac caacctgctc gccctcaacg ccgccatcga agccgcgcgc      120

g                                                                121

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<210> 18

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<211> 194
<212> DNA
<213> Pseudomonas aeruginosa PA01, complete genome

<220>
<221> misc_feature
<222> (4836528)..(4836720)
<223> Chromosome = 1 Strand = positive Connectron Object Number =
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cagcgccctcc tgcgccaaca tcgaggccct caacagccgc acggtgaaca tcggccagat      120
cctcgaagtg atcaagggca tctccgagca gaccaacctg ctgccctca acgccgccat      180
cgaagccgcg cgcg                                          194

<210> 19
<211> 169
<212> DNA
<213> Pseudomonas aeruginosa PA01, complete genome

<220>
<221> misc_feature
<222> (4838678)..(4838846)
<223> Chromosome = 1 Strand = positive Connectron Object Number =
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gccctcaaca gccgcacggt gaacatcggc cagatcctcg aagtgatcaa gggcatctcc      120
gagcagacca acctgctcgc cctcaacgcc gccatcgaag ccgcgcgcg      169

<210> 20
<211> 36
<212> DNA
<213> Sequence Recognized by Synthetic DNA Binding Protein

<400> 20
tccccatgag catagatatg caggtaggcg gcaagt      36

<210> 21
<211> 136
<212> DNA
<213> Vibrio cholerae chromosome I, complete chromosome

<220>

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<221> misc_feature
<222> (952641)..(952777)
<223> Chromosome = 1 Strand = negative Connectron Object Number = 607

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catagataga ctatgtgatt ggggtgaacg aacgtagcca acaccgtgc agcttcaagt      120

aggaagggtta tacctt      136

<210> 22
<211> 117
<212> DNA
<213> Vibrio cholerae chromosome I, complete chromosome

<220>
<221> misc_feature
<222> (1005810)..(1005926)
<223> Chromosome = 1 Strand = negative Connectron Object Number = 646

<400> 22
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cagactatgt gattgggggtg aacgaacgta gccaataaccg ctgcagcttc aagtagg      117

<210> 23
<211> 36
<212> DNA
<213> Sequence Recognized by Synthetic PNA

<400> 23
tcccatgag catagatatg caggtaggcg gcaagt      36

<210> 24
<211> 136
<212> DNA
<213> Vibrio cholerae chromosome I, complete chromosome

<220>
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<222> (952641)..(952777)
<223> Chromosome = 1 Strand = negative Connectron Object Number = 607

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catagataga ctatgtgatt ggggtgaacg aacgtagcca acaccgtgc agcttcaagt      120

aggaagggtta tacctt      136

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<210> 25  
 <211> 117  
 <212> DNA  
 <213> *Vibrio cholerae* chromosome I, complete chromosome

<220>  
 <221> misc\_feature  
 <222> (1005810)..(1005926)  
 <223> Chromosome = 1 Strand = negative Connectron Object Number = 646

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<210> 26  
 <211> 15  
 <212> DNA  
 <213> Sequence Recognized by Synthetic Linked Pair of DNA Binding Objects

<400> 26  
 cccgacacaa cctgc 15

<210> 27  
 <211> 15  
 <212> DNA  
 <213> Sequence Recognized by Synthetic Linked Pair of DNA Binding Objects

<400> 27  
 cccgggggttc ccgag 15

<210> 28  
 <211> 64  
 <212> DNA  
 <213> *Aeropyrum pernix* k1 complete genome

<220>  
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 <222> (284008)..(284070)  
 <223> Chromosome = 1 Strand = negative Connectron Object Number = 218

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 cggc 64

<210> 29  
 <211> 163  
 <212> DNA  
 <213> *Aeropyrum pernix* k1 complete genome

<220>  
 <221> misc\_feature  
 <222> (326716)..(326878)  
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 catgaaggca cggtttgggt gaacggctca taatcctctc gat 163

<210> 30  
 <211> 14  
 <212> DNA  
 <213> Synthetic Sequence

<400> 30  
 tagaggagta ccac 14

<210> 31  
 <211> 14  
 <212> DNA  
 <213> Synthetic Sequence

<400> 31  
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<210> 32  
 <211> 14  
 <212> RNA  
 <213> Synthetic Sequence

<400> 32  
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<210> 33  
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 <213> Synthetic Sequence

<400> 33  
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